

Appl. No. 10/720,512
Response to OA and RCE
Reply to OA of January 13, 2006

Attorney Docket No. 1999B060/3

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1-13. (Canceled)

14. (Currently Amended) A process of producing an adhesive composition comprising:

- a) reacting propylene and at least one comonomer selected from the group consisting of ethylene and C₄ to C₂₀ α -olefins, under polymerization conditions in the presence of a metallocene catalyst capable of incorporating the propylene into isotactic or syndiotactic sequences, in at least one reactor to produce a first copolymer having at least 65 mole % propylene and wherein at least 40% of the propylene sequences are in isotactic or syndiotactic orientations; and

- b) optionally, adding a tackifier;

wherein the first copolymer has a melt index (MI) from about 7 dg/min to about 3000 dg/min according to ASTM D 1238 (B) at 190°C, and wherein the MFR, as measured according to ASTM D 1238 at 230°C, of the first copolymer is greater than 250 dg/min.

15. (Previously Presented) The process of claim 14 further comprising:

- c) reacting propylene and at least one comonomer selected from the group consisting of ethylene and C₄ to C₂₀ α -olefins, under polymerization conditions in the presence of a metallocene catalyst capable of incorporating the propylene into isotactic or syndiotactic sequences, in another reactor or subsequent reactors, to produce a second copolymer having at least 65 mol % propylene wherein at least 40 mol % of the propylene sequences are in isotactic or syndiotactic orientations and;

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- d) combining the contents of the first reactor with the contents of the subsequent reactors to form a blend, and;
 - e) recovering the blend of step (d), and;
optionally adding a tackifier at any time in the process.
16. (Previously Presented) The process of claim 14 wherein the first copolymer comprises a semi-crystalline copolymer of propylene and at least one comonomer selected from the group consisting of ethylene and C₄ to C₂₀ α -olefins, having a propylene content of greater than 73 mole percent.
- 17-40. (Canceled)
41. (Withdrawn) A process for making a degraded adhesive composition, comprising:
- (a) providing a first polymer composition having an MFR less than 250 dg/min. at 230NC. and comprising a random copolymer produced by copolymerizing propylene and at least one of ethylene or alpha-olefin having 20 or less carbon atoms, the random copolymer having a crystallinity at least about 2% and no greater than about 65% derived from stereoregular polypropylene sequences and a melting point of from about 25NC to about 105NC; and
 - (b) contacting the first polymer composition, in the melted state, with a free radical initiator, to provide a second polymer composition, where the second polymer composition has an MFR greater than 250 dg/min. at 230NC.
42. (Withdrawn) The process of claim 41 in which the first polymer composition has an MFR less than 50 dg/min. at 230NC. prior to contacting the first polymer composition with the free radical initiator.
43. (Withdrawn) The process of claim 41 in which the free radical initiator comprises a peroxide.

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51. (New) The process of claim 14 further comprising the step of adding a tackifier at any time in the process.